

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Reinhard JOHO et al.

Art Unit: [to be assigned]

Application No.: [to be assigned]

Examiner: [to be assigned]

Filing Date: [on even date herewith]

Attorney Ref. No.: 003-088

For: ARMATURE BAR MOUNTING
AND METHOD OF MOUNTING
AN ARMATURE BAR (as amended)

PRELIMINARY AMENDMENT

Mail Stop Patent Application

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Prior to taking up this new patent application for action on the merits, please amend the application as follows.

IN THE TITLE:

Kindly rewrite the title to read:

ARMATURE BAR MOUNTING AND METHOD OF MOUNTING AN ARMATURE
BAR

IN THE CLAIMS:

Kindly rewrite Claims 1-23, and add Claims 24 and 25, as follows:

1. (Currently Amended) An electrical machine ~~including comprising:~~
a core having a slot, the slot having side surfaces;
an armature bar mounted in a the core slot in a core, the bar having side surfaces;
a void space between one side surface of the bar and one side surface of the slot;
a lateral ripple spring being inserted positioned between the bar and the core;
~~wherein;~~
conformable material occupies occupying the void space between one side surface
of the bar and the corresponding side surface of the slot so as to reduce the thermal
resistance between the bar and the core, the conformable material filling the void space
and being substantially uncompressed.
2. (Currently Amended) An electrical machine as claimed in claim 1, ~~in~~
~~which wherein~~ the conformable material is on ~~the a~~ side of the bar opposite to the lateral
ripple spring.
3. (Currently Amended) An electrical machine as claimed in claim 1, ~~in~~
~~which wherein~~ the conformable material is on the same side of the bar as the lateral ripple
spring.
4. (Currently Amended) An electrical machine as claimed in claim 3, ~~in~~
~~which the conformable material occupies further comprising:~~
troughs on at least one side of the lateral ripple spring; and
wherein the conformable material occupies the troughs.
5. (Currently Amended) An electrical machine as claimed in claim 4, ~~in~~
~~which wherein~~ the ~~said~~ troughs extend along the longitudinal direction of the bar.
6. (Currently Amended) An electrical machine as claimed in claim 4, ~~in~~
~~which wherein~~ the ~~said~~ troughs extend transversely or obliquely to the longitudinal
direction of the bar.

7. (Currently Amended) An electrical machine as claimed in ~~any preceding~~ claim 1, ~~in which there is~~ further comprising:
_____conformable material on both sides of the bar.
8. (Currently Amended) An electrical machine as claimed in ~~any preceding~~ claim 1, ~~in which~~ wherein the lateral ripple spring is electrically conductive.
9. (Currently Amended) An electrical machine as claimed in ~~any preceding~~ claim 1, ~~in which~~ wherein the lateral ripple spring is made of plastics material.
10. (Currently Amended) An electrical machine as claimed in ~~any preceding~~ claim 1, ~~in which~~ wherein the conformable material has enduring elasticity.
11. (Currently Amended) A method of mounting an armature bar in a slot in a core, the method ~~including~~ comprising:
_____inserting a lateral ripple spring between the bar and the core;
_____providing a flowable precursor of a conformable material in a void space between one side surface of the bar and the corresponding side surface of the slot so that the precursor fills the void space; and
_____allowing the precursor to cure to form the conformable material in the void space so as to reduce the thermal resistance between the bar and the core.
12. (Currently Amended) A method as claimed in claim 11, ~~including~~ comprising:
_____providing a layer of the precursor on the ~~said~~ one side surface of the bar before the bar is positioned in the slot.
13. (Currently Amended) A method as claimed in claim 11 ~~or 12~~, ~~including~~ comprising:
_____providing a layer of the precursor on the ~~said~~ corresponding side surface of the slot before the bar is positioned in the slot.

14. (Currently Amended) A method as claimed in claim 11, ~~in which,~~
comprising:
_____ after the bar and the lateral ripple spring have been positioned in the slot, injecting
the precursor ~~is injected~~ between the ~~said~~ one side surface of the bar and the
corresponding surface of the slot.

15. (Currently Amended) A method as claimed in claim 14, ~~in which~~ wherein
injecting comprises injecting the precursor ~~is injected~~ via ~~the~~ an open end of the slot.

16. (Currently Amended) A method as claimed in claim 15, ~~in which~~ wherein
the lateral ripple spring has transverse or oblique troughs extending towards the open end
of the slot, and injecting comprises injecting the precursor ~~being injected~~ into ~~the~~ a gap
containing the lateral ripple spring.

17. (Currently Amended) A method as claimed in claim 14, ~~in which~~ wherein
the core includes vent channels, and injecting comprises injecting the precursor ~~is~~
~~injected~~ via the vent channels of the core.

18. (Currently Amended) A method as claimed in claim 17, ~~in which~~ wherein
the lateral ripple spring has longitudinal troughs extending longitudinally of the bar, and
wherein injecting comprises injecting the precursor ~~being injected~~ into ~~the~~ a gap
containing the lateral ripple spring.

19. (Currently Amended) A method as claimed in claim 18, ~~in which~~ wherein
injecting comprises injecting at least a proportion of the precursor ~~is injected~~ beyond at
least one longitudinal end of the lateral ripple spring.

20. (Currently Amended) A method as claimed in claim 16 ~~or 18~~, ~~in which~~
wherein the amount of precursor injected is just sufficient to fill the troughs of the
installed lateral ripple spring.

21. (Currently Amended) A method as claimed in claim 11, including comprising:
_____ applying the precursor to troughs on at least one side of the lateral ripple spring before inserting ~~it~~ said spring between the bar and the core.
22. (Currently Amended) A method as claimed in claim 21, ~~in which~~ wherein the amount of precursor applied is just sufficient to fill the troughs when the lateral ripple spring has been inserted between the bar and the core.
23. (Currently Amended) A method as claimed in claim 14, ~~18, 20, 21, or 22,~~
including further comprising:
_____ measuring the clearance between the bar surface and the slot surface between which the lateral ripple spring is to be inserted, after the bar has been positioned in the slot; and
_____ determining the amount of precursor to be applied or injected on the basis of the measured clearance.
24. (New) A method as claimed in claim 18, wherein the amount of precursor injected is just sufficient to fill the troughs of the installed lateral ripple spring.
25. (New) A method as claimed in claim 21, further comprising:
_____ measuring the clearance between the bar surface and the slot surface between which the lateral ripple spring is to be inserted, after the bar has been positioned in the slot; and
_____ determining the amount of precursor to be applied or injected on the basis of the measured clearance.